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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,984	09/19/2005	Gerhard Hummel	4874/ PCT	3433

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FASSE PATENT ATTORNEYS, P.A.
P.O. BOX 726
HAMPDEN, ME 04444-0726

EXAMINER

HOOK, JAMES F

ART UNIT	PAPER NUMBER
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3754

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/549,984	Applicant(s) HUMMEL ET AL.	
	Examiner James F. Hook	Art Unit 3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, and 11-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 11-16 and 19-25 is/are rejected.
- 7) ☒ Claim(s) 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/19/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 11, 13, 15, 16, and 19 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Oser.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 11-16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Oser. The patent to Kikuchi discloses the recited insulation arrangement for pipes comprising at least one insulation layer 2, an outer sheath 4 which can be made of a thin metal layer which is a metal foil layer, the ends of the insulation layers are seen to have a Z shaped termination profile as seen in figures 3 and 4, thereby forming a shell with at least one longitudinal seam in which the insulation is inserted, where the Z shaped profile extends from a web adjacent the metal layer through a middle web, and to a lower web connected to the insulation, the shell is a full shell that is slipped over the pipe by means of the longitudinal seam, adhesive can

be used along with a flap 4a to close the shell at the seam, where the insulation is formed as two half shells which can be adhesively bonded together, in a manner that utilizes a billet type structure such as seen in figures 5-7 as structure 6, and where the metal foil layer is made of aluminum or stainless steel, where the shell is considered to have a profiled shape. The patent to Kikuchi discloses all of the recited structure with the exception of forming the metal foil layer of titanium foil, and providing such with stiffening elements. The patent to Oser discloses that it is old and well known to form an outer metal foil layer of an insulating structure of either aluminum, stainless steel, or titanium type foils, and to provide such with ribs 24 which would act as stiffening elements formed adjacent to the foil outer layer. It would have been obvious to one skilled in the art to modify the outer metal foil layer of Kikuchi by substituting a titanium foil for the aluminum or stainless steel foil and to provide such with ribs to strengthen the foil layer as suggested by Oser where such is an equivalent material used for outer foil layers of insulation systems, and providing ribs would help strengthen the thin metal layer to prevent premature failure thereby saving money in replacement costs.

Claims 20, 21, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Oser and Isenberg. The patent to Kikuchi discloses the recited insulation arrangement for pipes comprising at least one insulation layer 2, an outer sheath 4 which can be made of a thin metal layer which is a metal foil layer, the ends of the insulation layers are seen to have a Z shaped termination profile as seen in figures 3 and 4, thereby forming a shell with at least one longitudinal seam in which the insulation is inserted, where the Z shaped profile extends from a web

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adjacent the metal layer through a middle web, and to a lower web connected to the insulation, the shell is a full shell that is slipped over the pipe by means of the longitudinal seam, adhesive can be used along with a flap 4a to close the shell at the seam, where the insulation is formed as two half shells which can be adhesively bonded together, in a manner that utilizes a billet type structure such as seen in figures 5-7 as structure 6, and where the metal foil layer is made of aluminum or stainless steel, where the shell is considered to have a profiled shape. The patent to Kikuchi discloses all of the recited structure with the exception of forming the metal foil layer of titanium foil, forming the insulation of fiberglass wool, forming the termination to hold the insulation, and providing such with stiffening elements. The patent to Oser discloses that it is old and well known to form an outer metal foil layer of an insulating structure of either aluminum, stainless steel, or titanium type foils, and to provide such with ribs 24 which would act as stiffening elements formed adjacent to the foil outer layer. It would have been obvious to one skilled in the art to modify the outer metal foil layer of Kikuchi by substituting a titanium foil for the aluminum or stainless steel foil and to provide such with ribs to strengthen the foil layer as suggested by Oser where such is an equivalent material used for outer foil layers of insulation systems, and providing ribs would help strengthen the thin metal layer to prevent premature failure thereby saving money in replacement costs. The patent to Isenberg discloses that it is old and well known in the art of pipe insulation to use various types of materials for insulation including fiberglass wool, and to provide a termination profile such as 18 that seals the insulation and holds it in place. It would have been obvious to one skilled in the art to modify the termination

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profile of Kikuchi to be formed such that it holds the insulation in place on the pipe by creating an area between the outer sleeve and the inner pipe that contains the insulation, and to form the insulation of fiberglass wool as suggested by Isenberg where such is an equivalent type of insulation used with pipes, and such would hold the insulation in place to prevent it from moving around which could lead to damage and thereby saves money in replacement costs.

Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Oser and Isenberg as applied to claims 20, 21, 24, and 25 above, and further in view of Sigmund. The patent to Kikuchi as modified discloses all of the recited structure with the exception of welding the termination profile to the outer sheath and not connecting such to the pipe. The patent to Sigmund discloses that it is old and well known to provide an insulation sleeve with a termination profiles that are welded, where in some embodiments there is no connection to the pipe itself, such as when the termination profile is painted on the insulation, such is not considered connected to the pipe. It would have been obvious to one skilled in the art to modify the insulation sleeve in Kikuchi as modified by providing a termination profile which is not connected to the pipe, and to utilize welds for connecting termination profiles to the remaining portions of the article as suggested by Sigmund where such would allow for a better bond between metal materials to that of adhesive, and such would seal the insulation with an end profile that would protect the layer and prevent failure thereby saving money.

Allowable Subject Matter

Claims 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed December 22, 2006 have been fully considered but they are not persuasive. With respect to the Oser reference, the insulation layer is formed by the air gap, where the air itself is the insulation that is provided and therefore inserted into the sleeve of titanium, thereby meeting the claim language. The claims rejected under Oser do not set forth a particular type of insulation material. Therefore, the argument that Oser does not contain insulation is not persuasive. With respect to Kikuchi, the material seen in figure 5 between sections of insulation provided with termination profiles, forms a termination profile which meets the limitations of applicants claim language, such is shown in figure 5 under the reference numbers 7 and 8. Therefore the stepped faces provided with the material of 7,8 form the termination profile for the sleeve, and such being a flowable material is inherently connecting the layers and termination profiles together. Each of the profiled insulation layers is therefore connected by the foaming adhesive to form the termination. With respect to Oser not teaching end plates or insulation such is not persuasive when Oser is not used to modify the base reference in this manner. With regards to claims 17 and 18, the arguments were persuasive and the rejection of these claims has been dropped.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

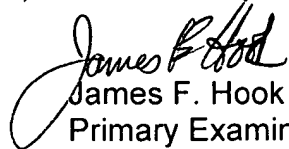
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (571) 272-4903. The examiner can normally be reached on Monday to Wednesday, work at home Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


James F. Hook
Primary Examiner
Art Unit 3754

JFH